

1. (Currently amended) An extracorporeal filter, comprising:  
a housing having an inlet for blood and an outlet for blood;  
said housing having an interior volume divided into filtrate portions and blood portions;  
an outlet for waste and ultrafiltrate in flow communication with said filtrate portion of said interior volume of said housing;  
an inlet cap attached to the housing at the blood inlet;  
[[a]] an outlet cap attached to the housing opposite the inlet;  
a gap between the filter and the outlet cap defining a headspace, the outlet cap  
having an outlet port for blood and an infusion port, both the outlet port for blood and the infusion port being connected to the housing such that they open directly to said headspace blood portion of said interior volume of said housing, whereby blood may be diluted by fluid infused in said infusion port; and  
a filter media received within the housing configured to separate said blood portion of said housing from said filtrate portion of said housing such that communication therebetween within said interior of said housing is provided only through said filter media.
  2. The filter of claim 1, wherein the infusion port is adjacent the outlet port for blood such that fluid injected into said infusion port is mixed with blood therein.
  3. (canceled).
  4. The filter of claim 1, wherein the cap is removably attached to the housing.
  5. (Canceled)
  6. The filter of claim 1, wherein the housing has a second cap that carries the inlet.
  7. The filter of claim 1, further comprising a second port adapted to receive dilution fluid radially adjacent the inlet.
  8. (canceled).
  9. The filter of claim 1, wherein the housing is generally cylindrical.
21. (new) An extracorporeal filter, comprising:

a housing having a blood volume and a treatment fluid volume separated by a filter membrane;

the housing defining blood inlet and outlet headspaces of the blood side;

the filter membrane consisting substantially of filter fibers that exit commonly into the headspace;

the inlet and outlet headspaces being partly defined by respective caps with blood inlet and blood outlet, respectively;

a dilution inlet directly connected to the blood outlet headspace with no intervening tubular connections between the blood outlet headspace and either of the blood outlet and the dilution inlet, such that blood may be diluted by fluid fed into the dilution inlet immediately after the blood exist the filter fibers into the blood outlet headspace.